



**Stellenbosch**

UNIVERSITY  
IYUNIVESITHI  
UNIVERSITEIT

SCIENCE

EYENZULULWAZI NGEZENDALO

NATUURWETENSKAPPE

*This module framework is applicable for the 2023 academic year only. It replaces all previous versions.*

*Hierdie moduleraamwerk is slegs van toepassing vir die 2023 akademiese jaar. Dit vervang alle vorige weergawes.*

<b>BDE 364</b>	<b>BDE 364</b>
<b>Short description of the module</b>  The aim of this course is to introduce the topic of conservation biology with a focus on the role that science plays in this field.	<b>Kort beskrywing van die module</b>  Die doel van hierdie kursus is om die onderwerp van bewaringsbiologie bekend te stel met die fokus op die rol wat wetenskap in hierdie veld speel.

### Module summary

Name	BDE 364
Duration	2 <sup>nd</sup> semester
Type	Compulsory in BDE programme
Academic commitment*	16 credits 4.5 hours per week
Scheduled learning opportunities	3 lectures per week 1 tutorial per week
<a href="#">Assessment option</a>	Option 4
<a href="#">Language option</a>	Option 3
Mode of offering	Face-2-Face
Corequisites/ Prerequisites/Pass prerequisite	PP Biodiversity and Ecology 212 or 214 and a final mark of at least 40% in the other Biodiversity and Ecology modules

*\*Notional hours are the learning time that it would take an average learner to meet the outcomes of the module.*

*\*\*The onus is on the students to ensure that they meet the prerequisites of the module.*

### Module-oorsig

Naam	BDE 364
Duur	2de semester
Tipe	Verpligtend in BDE program
Akademie se verbintenis*	16 krediete 4.5 uur per week
Geskeduleerde leergeleenthede	3 lesings per week 1 tutorial per week
<a href="#">Assesseringsopsie</a>	Opsie 4
<a href="#">Taalopsie</a>	Opsie 3
Modus van aanbieding	in persoon
Newevereistes / Voorvereistes / Slaagvoorvereistes**	PP Biodiversiteit en Ekologie 212 of 214 en 'n finale punt van minstens 40% in die ander Biodiversiteit en Ekologie modules

*\*Veronderstelde leerure is die tyd wat die gemiddelde leerder aan die module sal moet spandeer om aan die uitkomst van die module te voldoen.*

*\*\*Die onus rus op die studente om te verseker dat hulle aan die voorvereistes van die module voldoen.*

<p><b>Outcomes</b></p> <ul style="list-style-type: none"> <li>● have a thorough understanding of the concept of biodiversity.</li> <li>● understand how conservation is addressed at the molecular, population, ecosystem and landscape scales.</li> <li>● understand how resource management interfaces with conservation efforts.</li> <li>● be able to measure anthropogenic impacts.</li> <li>● be able to think objectively and critically about conservation issues.</li> </ul>	<p><b>Uitkomst</b></p> <ul style="list-style-type: none"> <li>● 'n grondige begrip te hê van die konsep van biodiversiteit</li> <li>● verstaan hoe bewaring op die molekulêre, bevolkings, ekosisteem en landskap skale aangespreek word.</li> <li>● verstaan hoe hulpbronbestuur met bewaringspogings skakel..</li> <li>● in staat wees om antropogeniese impakte te meet</li> <li>● objektief en krities oor bewaringskwessies te kan dink.</li> </ul>
<p><b>Scheduled learning opportunities</b></p> <p>The official timetable indicating all scheduled learning opportunities and their allocated venues can be accessed via <a href="#">My.SUN</a>.</p> <p><b>Lectures</b></p> <p>Face 2 face lectures are held on Mondays (10h00-10h50), Tuesdays (08h00-08h50) and Fridays (11h00-11h50) in room 1030 Natural Science Building</p> <p><b>Practicals</b></p> <p>Face 2 face practicals are held on Wednesdays (14h00-17h00) in room 2025 Natural Science Building</p>	<p><b>Geskeduleerde leergeleenthede</b></p> <p>Die amptelike rooster wat al die geskeduleerde leergeleenthede en die toegewysde venues aandui, is beskikbaar by <a href="#">My.SUN</a>.</p> <p><b>Lesings</b></p> <p>In persoon lesings vind plaas op Maandae (10h00-10h50), Dinsdae (08h00-08h50) en Vrydae (11h00-11h50) in kamer 1030 Natuurwetenskappe Gebou</p> <p><b>Praktika</b></p> <p>In persoon praktika vind plaas op Woensdae (14h00-17h00) in kamer 2025 Natuurwetenskappe Gebou</p>
<p><b>Study material</b></p> <p>Wilson and Primack (2019) <i>Conservation Biology in sub-Saharan Africa</i>. OpenBook Publishers (Free electronic version on SUNLearn and via a Google search)</p> <p>SUNLearn is the official learning management platform of Stellenbosch University. Each module has a dedicated page on this platform which can be accessed via this link: <a href="https://learn.sun.ac.za/">https://learn.sun.ac.za/</a></p>	<p><b>Studiemateriaal</b></p> <p>Wilson and Primack (2019) <i>Conservation Biology in sub-Saharan Africa</i>. OpenBook Publishers (Gratis elektroniese weergawe op SUNLearn en Google)</p> <p>SUNLearn is die amptelike leerbestuursplatform van die Universiteit Stellenbosch. Elke module het 'n toegewysde blad op hierdie platform met toegang via hierdie skakel: <a href="https://learn.sun.ac.za/">https://learn.sun.ac.za/</a></p>

## Lecturers

### Course coordinator:

Prof. Sophie von der Heyden ,room 3043 Natural Science Building,  
[svdh@sun.ac.za](mailto:svdh@sun.ac.za)

### Lecturers:

Dr Itumeleng Moroenyane  
[imoroenyane@sun.ac.za](mailto:imoroenyane@sun.ac.za) (IM)

Prof Tammy Robinson-Smythe  
[trobins@sun.ac.za](mailto:trobins@sun.ac.za) (TBR)

### Course Assistant:

Mr. Jonathan Williams,room 2057 Natural Science Building,  
[jpw@sun.ac.za](mailto:jpw@sun.ac.za)

Details regarding peer-to-peer facilitators will be announced on SUNLearn.

## Dosente

### Kursuskoördineerder:

Prof. Sophie von der Heyden,kamer 3043 Natuurwetenskappe Gebou,  
[svdh@sun.ac.za](mailto:svdh@sun.ac.za)

### Dosente:

Dr Itumeleng Moroenyane  
[imoroenyane@sun.ac.za](mailto:imoroenyane@sun.ac.za) (IM)

Prof Tammy Robinson-Smythe  
[trobins@sun.ac.za](mailto:trobins@sun.ac.za) (TBR)

### Kursus Assistant:

Mr. Jonathan Williams,kamer 2057 Natuurwetenskappe Gebou,  
[jpw@sun.ac.za](mailto:jpw@sun.ac.za)

Besonderhede rakende eweknie-fasiliteerders sal op SUNLearn aangekondig word.

## Assessment

The dates for all centrally scheduled assessments are published on [MySUN](#).

This module follows assessment option 4. Please see the [Faculty of Science's assessment guidelines](#) for more details.

Method of assessment	Description	#	Allocated marks	Criteria	Dates
Practical report	Class discussions	1	10%	Compulsory	16 + 23/08 (during practical sessions)
Practical report	Spatial planning/features	1	10%	Compulsory	20/09: 6pm
Practical report	Blue carbon	1	10%	Compulsory	27 /10: 6pm
Practical report	Communicating Science	1	20%	Compulsory	TBD
A1 assessment	Scheduled semester test	1	25%	45% subminimum for the 2 semester tests and final mark of 50%	06 September 14h00
A2 assessment	Scheduled semester test	1	25%		06 November 14h00

Please see the assessments and promotion chapter in the [SU Calendar Part 1 \(General\)](#) for institutional rules regarding assessments.

## Assesserings

Die datums van alle sentraal geskeduleerde assesserings word op [MySUN](#) gepubliseer.

Hierdie module volg assesseringsopsie 4. Raadpleeg die [Fakulteit Natuurwetenskappe se assesseringsriglyne](#) vir meer besonderhede.

Metode van assessering	Beskrywing	#	Punte toegeken	Kriteria	Datums
Praktiese verslae	Klasbesprekings	1	10%	Verplichtend	16 + 23/08 (gedurende praktiese sessies)
Praktiese verslae	Ruimtelike beplanning/kenmerke	1	10%	Verplichtend	20/09: 6pm
Praktiese verslae	Blou koolstof	1	10%	Verplichtend	27 /10: 6pm
Praktiese verslae	Kommunikasie wetenskap	1	20%	Verplichtend	TBD
A1 assessering	Geskeduleerde semester toets	1	25%	45% subminimum vir die 2 semester toetse en 'n finale punt van 50%	06 September 14H00
A2 assessering	Geskeduleerde semester toets	1	25%		06 November 14h00

Raadpleeg die hoofstuk oor assessering en promovering in [Deel 1 \(Algemeen\) van die US Jaarboek](#) vir institusionele reëls oor assesserings.

<h3>Calculation of final marks</h3> <p>Practical reports: 50%  Class test 1; 25%  Class test 2: 25%  Total: 100%</p>	<h3>Berekening van finale punte</h3> <p>Practiese verslae: 50%  Klastoets 1; 25%  Klastoets 2: 25%  Totaal: 100%</p>
<h3>Absenteeism (Missed opportunities)</h3> <p><u>Missing tests and deadlines:</u>  In instances where a test or deadline is missed a <u>valid doctor's certificate</u> is required <u>within one week</u> of the test or hand-in date. The certificate must be emailed to Mr Williams as well as Mrs Hutton (email: <a href="mailto:janette@sun.ac.za">janette@sun.ac.za</a>). We reserve the right to request a hardcopy of the certificate. Failure to submit a note will result in a <u>mark of zero</u>.</p> <p>Please see the section 11 of the <a href="#">SU Calendar Part 1 (General)</a> for the institutional rules regarding absence from classes and or tests. Take note that for any absence from the university <i>for more than one</i> teaching, learning or assessment opportunity, for whatever reason, students need to apply for leave of absence from the Registrar's office. If you are absent for exactly one teaching, learning or assessment opportunity you need to consult your lecturer immediately and provide the appropriate evidence as stipulated in the calendar.</p>	<h3>Afwesigheid (die misloop van 'n leergeleentheid)</h3> <p><u>Verpas toetse en sperdatums:</u>  In gevalle waar toetse en sperdatums gemis word, moet 'n geldige doktersertifikaat, binne 'n week van die toets of inhandigingsdatum, aan Mnr. Williams en ook Mev. Hutton (<a href="mailto:janette@sun.ac.za">janette@sun.ac.za</a>) per e-pos gestuur word. Ons behou die reg om 'n hardekopie van die sertifikaat aan te vra. Versuiming om 'n nota in te dien sal lei tot 'n punt van nul.</p> <p>Raadpleeg asseblief afdeling 11 in <a href="#">Deel 1 (Algemeen) van die US Jaarboek</a> vir die institusionele reëls met betrekking tot afwesigheid van klasse en of toetse. Neem kennis dat studente by die Registrateur moet aansoek doen vir verlof tot afwesigheid, vir watter rede ook al, van <i>meer as een</i> onderrig-, leer-, of assesseringsgeleentheid, Indien jy afwesig is van presies een onderrig-, leer-, of assesseringsgeleentheid, moet jy die betrokke dosent onmiddellik kontak en die toepaslike bewys van rede tot afwesigheid inhandig, soos uiteengesit in die Jaarboek.</p>

## Communication

The **announcement forum on the SUNLearn module page** is the only official platform that will be used to make announcements relevant to this module. Please check this regularly.

For communication with individual students, lecturers, support staff and peer-to-peer facilitators will only use students' official SUN email addresses.

Students are also requested to use their official **SUN email addresses** for all academic related communication to: [svdh@sun.ac.za](mailto:svdh@sun.ac.za)

## Kommunikasie

Die **aankondigingsforum op die SUNLearn moduleblad** is die enigste amptelike platform wat gebruik sal word om aankondigings, wat relevant is vir hierdie module, te maak. Kontroleer dit asseblief gereeld.

Vir kommunikasie met individuele studente, sal dosente, steunpersoneel en eweknie-fasiliteerders slegs studente se amptelike SUN-e-posadresse gebruik.

Studente word ook versoek om hul amptelike **SUN-e-posadresse** vir alle akademiese verwante kommunikasie te gebruik: na [svdh@sun.ac.za](mailto:svdh@sun.ac.za)

## Addressing challenges

For any complaints, the first port of call is the class representative or the lecturer. If not satisfactorily resolved, it can be escalated to the Head of Department or [Coordinator: Academic and Student Affairs](#).

## Hantering van uitdagings

Vir enige klagtes, is die klasvertegenwoordiger of dosent die eerste plek om hulp te soek. Indien die probleem nie bevredigend opgelos word nie, kan dit na die Departementshoof of [Koördineerder: Akademiese- en Studentesake](#) verwys word.

## Academic Misconduct

Academic misconduct includes plagiarism, collusion, cheating and fabrication as stipulated in the [Disciplinary code for students of Stellenbosch University](#).

Plagiarism is regarded as a serious offence. More serious cases are handled as set out in the [Stellenbosch University procedure for the investigation and management of allegations of plagiarism document](#). Less serious cases are dealt with by the module coordinator and respective department as set out by the procedures of the faculty.

## Akademiese Wangedrag

Akademiese wangedrag sluit plagiaat samespanning, bedrog en versinsel in, soos bepaal in die [Dissiplinêre kode vir studente van die Universiteit Stellenbosch](#).

Plagiat word as 'n ernstige oortreding beskou. Ernstiger gevalle word hanteer soos uiteengesit in die [Universiteit Stellenbosch se dokument oor die prosedure vir die ondersoek en bestuur van bewerings van plagiaat](#). Minder ernstige gevalle word deur die modulekoördineerder en betrokke departement hanteer soos uiteengesit in die fakulteitsprosedures.



## Repeaters

Take note that this the last year that BDE 364 will be offered as Conservation Biology. In 2024 it will be replaced by 'Global Change Solutions'.

If you are repeating BDE 364 in 2023 and would like to carry over your practical marks from 2022, please contact the course coordinator.

## Herhalers

Neem kennis dat dit die laaste jaar is wat BDE 364 as Bewaringsbiologie aangebied sal word.

Indien jy BDE 364 in 2023 herhaal en jou praktiese punte vanaf 2022 wil oordra, kontak asseblief die kursuskoördineerder.

### Lecture programme:

Week	Date	Topic	Lecturer
1	24/07 MON	Introduction to the course What is conservation biology?	SvdH
	25/07	Horizon scan of emerging issues or global conservation in 2020	SvdH
	28/07	Patterns of biodiversity and utility of the natural world	IM
2	31/07 MON	Biodiversity in major world ecosystems	IM
	01/08	Biodiversity loss, extinction risk & threat status Allee effect	IM
	04/08	The role of disturbance	IM

3	07/08 MON	Habitat loss	IM
	08/08	Ecosystem functioning	IM
	11/08	Ecosystem services	IM
4	14/08 MON	Domestic legal framework	TBR
	15/08	Reading/Self study	
	18/08	International legal framework	TBR
5	21/08 MON	Decision making	SvdH
	22/08	Systematic Spatial/Conservation planning	SvdH
	25/08	Considering terrestrial & marine perspectives in SCP	SvdH
6	28/08 MON	Planning outside national boundaries: pelagic ecosystems	SvdH
	29/08	Important Bird Areas: assessing PA efficacy under CC	SvdH
	01/09	The MPA conundrum	SvdH
7	04/09 MON	The importance of genetic diversity	SvdH
	05/09	ESU, MU & adaptive capacity: intraspecific variation	SvdH
	08/09	Anthropocene impacts: a global genetic perspective	SvdH
<b>RECESS</b>			
8	18/09 MON	Anthropocene impacts: regional perspectives	SvdH
	19/09	Phylogenetic diversity (PD)	SvdH
	22/09	Using PD for species conservation	SvdH
9	25/09 MON	<b>PUBLIC HOLIDAY (Observe Heritage Day on Sunday)</b>	
	26/09	Integrating genetics into spatial planning	SvdH
	29/09	<b>GUEST LECTURE: managing African demersal fisheries with genomics</b> <b>(MONDAY TIMETABLE APPLIES)</b>	SvdH

10	02/10 MON	Restoration ecology	AN
	03/10	Restoration ecology and the importance of BC ecosystems	AN
	06/10	<b>GUEST LECTURE:</b> Dr Jackie Raw – <b>ecological restoration for generating carbon credits and what actually is a 'carbon project'</b>	SvdH
11	09/10 MON	Societies and natural resources	SvdH
	10/10	Sustainability economics	SvdH
	13/10	<b>GUEST LECTURE:</b> Dr Romain Pirard – <b>economic valuations for decision-making</b>	SvdH
12	16/10 MON	Introduction to general principle of conservation and sustainable agriculture	SvdH
	17/10	General applied principles and examples of sustainable agriculture	SvdH
	20/10	Outlook on broader themes and emerging technologies/theories	SvdH
13	23/10 MON	Technology and conservation	SvdH
	24/10	Challenges facing conservation	SvdH
	27/10	Revision / self-study	

**Practical programme:** The practical component of this course will take the form of face-to-face interactions. Pracs are scheduled for Wednesday afternoons 14h00-17h00.

Week	Date	Topic	Lecturer
1	26/07	Introduction to controversies discussions	IM
2	02/08	Introduction to the communication assignment	IM

3	09/08	PUBLIC HOLIDAY (NATIONAL WOMEN'S DAY)	
4	16/08	Controversies in conservation discussions	IM
5	23/08	Controversies in conservation discussions	IM
6	30/08	Introduction and prep for students who have not done BDE 354: Practical for Cons Ecol students	SvdH
7	06/09	CLASS TEST	IM/SvdH
<b>RECESS</b>			
8	20/09	Features assignment (to be completed and submitted online)	SvdH
09	27/09	Work on communication assignment	IM
10	04/10	Self-study: Tanzanian lion questions. (will be part of second test)	SvdH
11	11/10	Blue Carbon	AN
12	18/10	Blue Carbon	AN
13	25/10	Work on communication assignment	IM